

situate in the lower levels and valleys of Kent may yield even larger and more interesting results when I have the opportunity of resuming the investigation.

EXPLANATION OF PLATE VIII.

N. Kochianus, Bate, from Lough Mask.

Fig. 1. Terminal uropoda, male and female (to scale).

Fig. 2. Mandible.

Fig. 3. Posterior lip.

N. fontanus, Bate (?), = *N. subterraneus*, Leach.

Fig. 4. Gnathopod of first pair.

Fig. 5. Second pair of gnathopoda.

From a specimen half an inch in body-length from no. 4 well, near Sittingbourne, Kent.

XLI.—On some new Species of Silver-Pheasants from
Burma. By EUGENE W. OATES.

AMONGST the Pheasants that I have received from Burma during the last two years there are three well-marked new species of Silver-Pheasants. The first two that I shall describe belong to an entirely new section of these birds, in which the males combine a black wing with a barred tail, and the females have the middle tail-feathers with the two webs of different colours. The third species is of remarkable interest, as it has now been rediscovered after an interval of eighty years. The bird was, however, never described nor named, and it was only known from a coloured drawing.

Gennæus obscurus, sp. n.

In the adult male the head, crest, and the whole lower plumage are glossy blue-black. The hind-neck, mantle, back, and all the upper wing-coverts are bluish black, sparingly speckled with pale buff. The rump-feathers and upper tail-coverts are bluish black, broadly margined with white and very sparingly dotted with pale buff on one or both webs. The primaries are brown; the secondaries black, with a few buff specks on the margin of the outer web of each feather. The outermost tail-feather is black; the middle pair black with narrow, broken, diagonal white bars on the whole of both webs, except the terminal quarter of the outer web, the margin of the basal half of the inner web

being plain white. The remaining tail-feathers are of an intermediate character, the second from the outside being black with a few specks of white at the base of the outer web and the feather next the middle pair being black with a few diagonal white lines on the basal three-fourths of the outer web.

In another male, which is probably a year younger than the specimen described above, the specks or dots on the upper plumage, wing-coverts, and secondaries are more numerous and form narrow, zigzag, broken lines. The markings on the tail-feathers are less numerous and the middle tail-feathers have the inner web entirely black.

Length of wing 9·25 inches, of tail 11·5 inches. The legs are of a brown colour.

The female resembles the female of *G. Horsfieldi* in all respects, except in the coloration of the tail. The general colour of the plumage is reddish brown, the feathers edged paler and vermiculated in an indistinct manner with black; those of the breast and belly marked with cream-coloured shaft-streaks. The quills of the wing are brown, mottled with fulvous on the outer webs. The outermost tail-feather is entirely black; the next six are also black, the second from the outside having a few white specks at the base of the outer web, the specks increasing in number on each successive feather and gradually combining into narrow wavy bars, the seventh feather being cross-barred all over, except at the tip. The two middle feathers are of a rich dark chestnut on the outer web and of a pale chestnut on the inner, both webs being longitudinally marked with wavy black bars, those on the outer web being much broader than those on the inner. Length of wing 8·5 inches, of tail 9·5 inches. The legs are of a brown colour.

Both sexes of this pheasant were sent to me by Captain W. G. Nisbett from the Katha District of Upper Burma.

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Gennæus Cliffordi, sp. n.

In this species the male is unique in being streaked with white on the mantle, and the female is remarkable in having black spots on some of the feathers of the wing.

In a very old male the head, crest, and the whole of the lower plumage are glossy blue-black. The hind-neck and mantle are black, each feather with a narrow streak, which is white mottled with black, and about an inch in length. The upper back is plain black. The lower back and rump are black, each feather with a white margin and one or two

broken white vermiculations just above the margin. The primaries are dark brown; the secondaries black, with a few white specks on the margins of the outer webs of the outermost feathers. The upper wing-coverts are black, a few of the lesser coverts with white shaft-streaks; the inner median and greater coverts with a very narrow but conspicuous white margin. The middle tail-feathers are diagonally marked with equal bands of black and white, the margin of the inner web being plain white. The next feather is black, everywhere banded narrowly with white. The next is black, sparingly marked with broken bars of white. The next, again, is black with a little white at the base only. The four outer feathers are plain black. The upper tail-coverts are black, covered with broken white bands more or less parallel to the margin.

Length of wing 10 inches, of tail nearly 16 inches. The legs are brown.

A young male, with the spurs half-grown, has the plumage of the same character as the bird just described, but differing in some details. The streaks on the mantle are large and triangular, extending in some cases to nearly the whole of the feather, and the white much broken up. The upper wing-coverts are speckled with white, and the white margin to the inner median and greater coverts is indistinct. The visible portions of the rump-feathers are black with a broader white margin, but lacking the broken white vermiculations above the margin. On the other hand, there is much white speckling on the concealed portions of the feathers. The middle tail-feathers, which have only a very slight curl outwards, are black, very sparingly banded with white. The next three are still more sparingly marked and the outer four are entirely black.

Length of wing 9.5 inches, of tail nearly 10 inches. The legs are of a brownish flesh-colour.

The female has the upper plumage and wing-coverts of a russet-brown colour, each feather vermiculated with black, the shaft and the margin much paler, some of the inner median and greater coverts with a black patch or large spot near the tip of one or both webs. The primaries are brown; the secondaries brown vermiculated with black and mottled with rufous, the innermost with a black patch near the tip of the outer webs. The middle tail-feathers are dull chestnut on the inner web, vermiculated with black; and black on the outer web, vermiculated with chestnut on the margin. The other tail-feathers are all black. The lower plumage is black, the margins of the feathers pale brown. Each feather

of the breast and belly has a very broad, pointed, ochraceous streak, occupying quite half of the feather and in some cases three-quarters, and mottled with black. The feathers of the sides of the body and flanks have bright ochraceous shaft-streaks.

Length of wing 9 inches, of tail 8·5 inches. The legs are pale brown.

Specimens of this pheasant have been sent to me by Lieut. R. Clifford, of the 22nd Punjabis, and I have much pleasure in associating his name with the species. It occurs in the Myitkyina District, east of the Irrawaddy river.

Gennæus assimilis, sp. n.

In the year 1826 Crawford went on a mission to the Court of Ava and in the course of his travels met with a pheasant, of which a coloured drawing was made. So far as I can ascertain, nothing was known of this drawing till Gould reproduced it in the background of his plate of *Diardigallus praelatus* in his 'Birds of Asia.' I have often looked at this drawing of Gould's and wondered why the artist should have depicted the female of *Gennæus rufipes*, the Ruby Mines Pheasant, with flesh-coloured legs. The mystery was cleared up when I received from the Ruby Mines a bird which corresponded precisely with Gould's figure. On writing to one of my correspondents, I learn that there is in the Ruby Mines District a pheasant with pale legs, very similar in other respects with the red-legged species, and equally well known. I hope, therefore, soon to acquire the male.

The female of the present species has the whole upper plumage and the upper wing-coverts of a uniform umber-brown, the shafts and the margins of the feathers somewhat paler; the crest a darker brown, vermiculated with black; the upper tail-coverts also thickly vermiculated with dark brown. The primaries are dark brown, mottled with fulvous on the outer webs; the secondaries are umber-brown, vermiculated with black. The tail-feathers are diagonally barred and vermiculated with a combination of umber-brown, fulvous, black, and very pale buff, the inner webs being darker and more coarsely marked than the outer. The whole lower plumage is dark blackish brown, each feather with two broad, zigzag, V-shaped marks of an ochraceous colour, the outer being close to the edge of the feather, the inner much smaller and frequently forming only an irregular and coarse streak on and about the shaft. Length of wing nearly 10 inches; of tail 10 inches. The legs are flesh-coloured.

The main points of difference between the female of this species and those of *G. rufipes*, of which I have a large series, are the flesh-coloured legs, and the absence of black vermiculations on the upper plumage and upper wing-coverts.

XLII.—*Footprints of small Fossil Reptiles from the Karroo Rocks of Cape Colony.* By H. G. SEELEY, F.R.S.

No record has hitherto been published of the footprints of the animals which have left their remains so plentifully in the Karroo rocks. I examined a considerable area of the Colony in the search for these evidences of the habits of the animals without success; and neither Mr. Thomas Bain nor Dr. Kannemeyer had ever met with any footprints in the rocks. Suitable surfaces for their preservation are not uncommon in large exposures of ripple-marked shale which occur on the Pareiasaurian horizon.

One small slab is preserved in the palæontological museum of the University of Munich, where it has remained since 1880. It is labelled "Middelburg," presumably the well-known locality in the north-east of Cape Colony, and with it is a small new Theriodont skull from the same locality which, when the matrix is removed, may prove to be allied to *Hyorhynchus*.

When I drew the attention of the late Professor K. v. Zittel to the interest of the specimen, he had a cast made and placed in my hands for description. This cast has been presented to the Natural History Museum, Cromwell Road.

The small block of fine sandstone, where it is broken at the edge, shows the impressions of bones of small digits, which terminate in sharp compressed claws, making an interesting difference from the absence of bones with footprints in the Trias of this country, which may lead to a future discovery of definite association of footprints of South-African reptiles with the bones of animals which made them, as the reward of systematic exploration.

The surface of the slab appears to be crossed by two or three faint parallel marks an inch or two apart, which are probably ripple-marks, and the larger footprints tend to cross these obscure markings at an angle of about 45°. At least three animals are indicated varying in size. The largest has the feet about the size of those of *Procolophon*, and shows a similar stoutness and divergence of the digits, so that the prints may be provisionally referred to that genus; but the